Policies and terms for investment by IFD DK.

Grants from Danish public research councils and foundations are subject to the following policies and terms:

1) “Project activities in the partnership must comply with the ‘Do no significant harm’-principle according to Technical Guidance (2021/C58/01, see: https://eur-lex.europa.eu/legalcontent/EN/TXT/?uri=CELEX:52021XC0218(01)) , i.e. the activities should lead to no significant harm to environmental objectives within the meaning of Article 17 of the EU Taxonomy Regulation, and the activities must be in compliance with relevant EU and national environmental legislation.”

2) The grant partners must abide by the guidelines on international research and innovation cooperation formulated by the Committee for Guidelines on International Research and Innovation Cooperation (URIS), appointed by the Ministry of Higher Education and Science, see: https://ufm.dk/publikationer/2022/afrapportering-udvalg-om-retningslinjer-for-internationalt-forsknings-og-innovationssamarbejde

3) Open Access policy for public research councils and foundations (attached)

4) Responsible research and innovation (attached)

5) Danish Code of Conduct for Research Integrity (attached)

Innovationsfonden Europahuset, Europaplads 2, 4. sal 8000 Århus Innovationsfonden.dk

Open Access policy for public research councils and foundations

In June 2012, the Danish Council for Independent Research, the Danish National Research Foundation, the Danish Council for Strategic Research, the Danish National Advanced Technology Foundation and the Danish Council for Technology and Innovation adopted their joint Open Access policy.

Research grants from The Danish Council for Independent Research (DFF), the Danish Council for Strategic Research, the Danish National Research Foundations, the Danish Advanced Technology Foundation, and the Danish Council for Technology and Innovation (in the following referred to as research councils and foundations) are essential for Danish and international research, innovation and economic growth.

Open Acces Policy for Public Sector Research Council and Foundations of 21 June 2012

Contact letter to publisher

Addendum to Publication Agreement

Research furthers knowledge and drives the intellectual, social and economic development. Research councils and foundations find it important to strengthen the effect of research by ensuring free and cost-free digital access for everybody to state-financed research results. Open Access - i.e. access free of charge for everybody to read and use scientific information in digital form via the Internet - will improve the possibilities of a better utilisation of the most recent research results.

With this policy, research councils and foundations want to establish Open Access as the standard in scientific publishing. The aim is to ensure that all scientific articles, the quality of which has been assured by peer review and which have been published in a scientific magazine, can be read and distributed without any financial, technical or legal restrictions.

With this policy, research councils and foundations also want to make sure that the researchers will get a better foothold regarding copyright for their own articles in connection with scientific publication.

Furthermore, research councils and foundations have adopted the Berlin *Declaration on Open Access to Knowledge in the Sciences and Humanities*, which is a milestone in the definition of and work with Open Access.

Requirements for the grant holder

The grant holder is - if the magazine allows it - requested to parallel-publish a digital version of the final, peer-reviewed scientific article which has been accepted by a scientific magazine. The article which is a result of full or part financing by research councils and foundations must be parallel-published in an institutional or subject-specific repository, i.e. a digital archive.

The parallel publishing of the scientific article can - at the request of the magazine - take place after an embargo period, i.e. a period in which the article is only available in the scientific magazine, of up to six or twelve months after publication in the scientific magazine. The waiting periods for the specific research areas must be as follows:

Health science - 6 months
Natural science - 6 months
Engineering science - 6 months
Agricultural and veterinarian science - 6 months
Social science - 12 months
The humanities - 12 months

The final, peer-reviewed scientific article which is subject to parallel publication must include all graphic and other materials prepared for the article. Research data shall be excepted.

The grant holder is responsible for making sure that relevant publication or copyright agreements with publishers are in accordance with the conditions for grants laid down by research councils and foundations in connection with parallel publication.

Such conditions shall be observed according to current copyright rules.

Which types of publication are included?

through peer review.

This means that the request for parallel publication does *not* include:

monographs
anthologies
books
popular science articles, i.e. articles processed by journalists without quality assurance through peer review.

What does this mean for the grant holder?

For the grant holder, this policy means:

I. that the grant holder must in connection with acceptance of an article for publication in a scientific magazine try to maintain the rights to parallel-publish an edition of the peer-reviewed and accepted scientific article.

How?

This can be done by using the draft letter and appendix for publication agreement for publishers/magazines which are available on the websites of research councils and foundations in Danish and English.

If the publishers accept the request, the grant holder maintains a non-exclusive and non-commercial right to publish his/her own scientific articles.

The above request for publishing via Open Access can also be met by publication by the grant holder directly in an Open Access magazine (complete or hybrid).

Research councils and foundations find it important that the grant holder should not compromise on the quality of the magazine in which he/she wants to publish. They are therefore recommended only to publish in an Open Access magazine if the profession finds that such a magazine exists at a high, well-reputed quality level.

II. that the grant holder ensures in connection with publication - possibly after the waiting period - that the article is parallel-published in an institutional or subject-specific repository.

library at the relevant institution or the responsible operator of the subject-specific digital archive.

III. that in connection with reporting to research councils and foundations, the grant holder will in the reporting form state links to the scientific publications subject to parallel-publication in Open Access as a consequence of full or part financing.

How?

The electronic form for reporting, links to the scientific articles published in Open Access must be stated (possibly with indication of the embargo period, if the waiting period had not ended on reporting).

If articles are as a consequence of full or part financing by research councils and foundations published in Open Access after the final reporting, a revised form must be forwarded, stating such articles with links.

Evaluation of the policy

No later than two years after the publication of this policy, it will be evaluated with a view to a discussion of the need to revise the policy.

Contact letter to publishers

Addendum to publication agreement

Open Acces Policy for Public Sector Research Council and Foundations of 21 June2012Contact letter to publisherAddendum to Publication Agreement

last modified Jun 12, 2015

News from the Ministry

@UFM_UDD

@UFM_FI

This is the joint website for the Danish Ministry of Higher Education and Science.

The website includes the Ministry/the Department, Danish Agency for Science, Technology and Innovation and Danish Agency for Higher Education.

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Innovationsfonden

Requirements for responsible research and innovation

Responsible Research and Innovation (RRI) within Innovation Fund Denmark.

R
R

I aims to strengthen the links between research & innovation processes and results and societal values and needs.

Innovation Fund Denmark strives to advance RRI in both its overall strategies and via its projects and the Fund adheres to the European Commission's definition and implementation of RRI.

We have designed our investment types and evaluation criteria in such a way as to encourage projects to focus on 'societal commitment' and 'research training'. To that end, projects are specifically encouraged to:

- Involve all relevant stakeholders and institutions in the research and innovation process
- Cultivate a keen focus on future users
- Engage in formal and informal cross-institutional research training

By involving all relevant stakeholders in the research and innovation process projects may potentially create more sustainable and long-term results. And by making formal and informal research training an integral part of the projects, they will not only generate research and innovation results, but also train the next generation of researchers.

Mere om RRI

Læs mere om RRI på følgende sider:

RRI Tools
RRI Tools formål er at opbygge et bedre forhold mellem videnskab og samfund.

HORIZON 2020
HORIZON 2020 er EU´s rammeprogram for forskning og innovation.

ResAGorA
Res-agora består af 8 europæiske partnere fra universiteter og organisationer indenfor videnskab og teknologi.

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Danish Code of Conduct for Research Integrity

November 2014

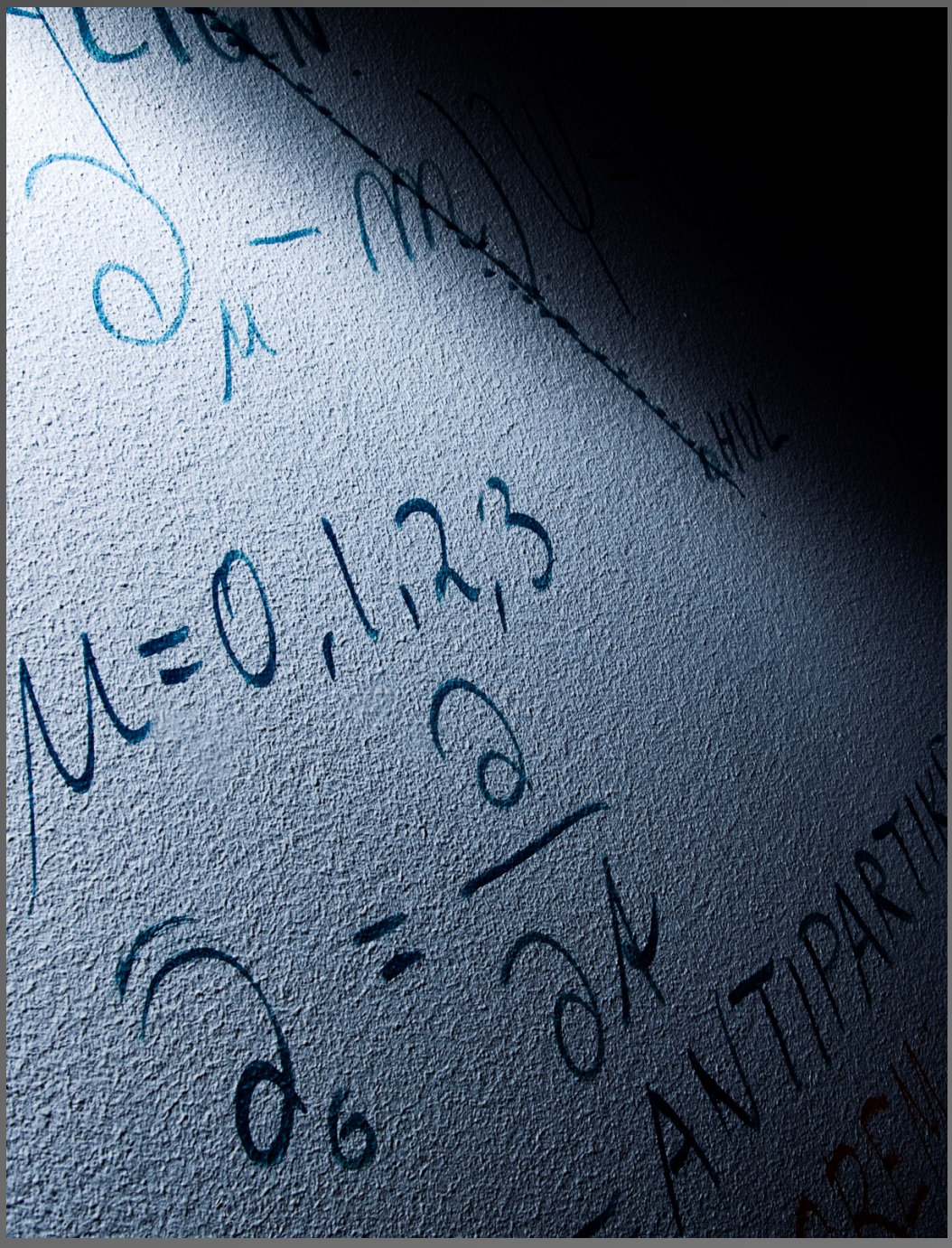

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Table of Contents

Foreword 4

I. Principles of Research Integrity 6
This chapter presents three central principles that should pervade all phases of research:

1. Honesty
2. Transparency
3. Accountability

II. Responsible Conduct of Research 7
This chapter presents six basic standards for conducting responsible research – from the planning phase to the dissemination of results:

1. Research planning and conduct
2. Data management
3. Publication and communication
4. Authorship
5. Collaborative research
6. Conflicts of interest

III. Research integrity teaching, training, and supervision 16
This chapter outlines the basic platform for research integrity teaching, training, and supervision.

Specific teaching on research integrity as well as ongoing training and supervision in responsible conduct of research are key elements for fostering a culture of research integrity.

IV. Research misconduct and breaches of responsible conduct of research 19
This chapter explains the importance of having a system in place for handling research misconduct and breaches of responsible conduct of research.

The research parties' responsibility for addressing these matters is outlined here.

Appendix 1– Recommendations for responding to breaches of responsible conduct of research 22

Appendix 2 – Members of the working group on the Danish Code of Conduct for Research Integrity 24

Appendix 3 – Bibliography 26

Foreword

Research and research-based education is of central and increasing importance in developing society's knowledge base, increasing welfare and providing informed answers to local and global challenges.

This is why we invest heavily in high-quality research and education. All this happens in a continually more complex and demanding interdisciplinary and internationalised research community.

To support high-quality research we must strive for trustworthiness and high integrity in research. At the same time we must respect the basic principle of freedom of research, which enables us to support a climate where new views and understandings (including those that are critical and possibly controversial) can be put forward. Freedom of research implies the right to freely define research questions, choose and develop theories, gather empirical material and employ appropriate methods.

Honesty, transparency, and accountability should pervade all phases of the research process, as failure to respect these basic principles jeopardises the integrity of research to an extent that may threaten the freedom of research. Researchers and institutions should be aware of their responsibilities to the research community, to the funders of research activities and to society at large.

Over the past few years international guidelines and recommendations aimed at promoting research integrity have been developed. Three widely acknowledged documents are of particular importance:

- The Singapore Statement on Research Integrity (developed at the 2nd World Conference on Research Integrity in 2010)
- The Montreal Statement on Research Integrity in Cross-Boundary Research Collaborations (developed at the 3rd World Conference on Research Integrity in 2013)
- The European Code of Conduct for Research Integrity (developed by the European Science Foundation and All European Academies in 2011)

These international guidelines recommend that all research institutions continuously support high integrity in their research. We must do the same in Denmark by promoting research integrity at the national and institutional level in accordance with these international documents.

The Danish Code of Conduct for Research Integrity provides the research community with a framework to promote commonly agreed principles and standards. The Code of Conduct aims to support a common understanding and common culture of research integrity in Denmark.

Based on three basic principles of research integrity, i.e. honesty, transparency, and accountability, the Code presents a set of six commonly accepted standards on responsible conduct of research, a set of guidelines on teaching, training, and supervision, and, finally, a set of guidelines on how to respond to breaches of responsible conduct of research. Together, these elements are intended as guidance tools for researchers in their day-to-day work. Furthermore, the Code pro-

vides a common foundation upon which institutions are encouraged to further develop policies and procedures for promoting research integrity within all fields of research.

The Danish Code of Conduct for Research Integrity is not a legally binding document in itself. The Code will only gain full impact when researchers adhere to the document and when public and private research institutions integrate the document in their institutional framework.

The Code embraces all fields of research, while acknowledging the fact that the applicability of the standards for responsible conduct of research may differ between various fields of research. This implies that some recommendations may be more relevant for a specific field of research and at the same time be less applicable to others. The recommendations of the Code should always be understood in accordance with established practices predominant within the individual fields of research.

The Code was drafted by a working group established in 2013 by the Ministry of Higher Education and Science and the organisation Universities Denmark. The working group comprised representatives from all eight Danish universities, the Sector Research Institutes of Denmark, the Danish Council for Independent Research and the Danish Council for Strategic Research. As part of the development of the Code, it was sent to public consultation and discussed at a conference in May 2014.

I. Principles of Research Integrity

The Danish Code of Conduct for Research Integrity rests on three basic principles that should pervade all phases of research.

Honesty

To ensure the trustworthiness of research, researchers should be **honest** when reporting objectives, methods, data, analysis, results, conclusions, etc.

This requires accurate and balanced reporting when:

- presenting and interpreting research
- making claims based on findings
- acknowledging the work of other researchers
- applying for research funding
- reviewing and evaluating research

Transparency

To ensure the credibility of scientific reasoning and to ensure that academic reflection is consistent with practice in the relevant field of research, all phases of research should be **transparent**.

This requires openness when reporting:

- conflicts of interest
- planning of research
- research methods applied
- results and conclusions

Accountability

To ensure the reliability of research, all parties involved should be **accountable** for the research carried out.

This requires that researchers and institutions accept responsibility for the research they are conducting, in terms of:

- accuracy and reliability of research results
- adherence to all relevant regulations
- fostering and maintaining a culture of research integrity through teaching, training, and supervision
- taking appropriate measures when dealing with breaches of responsible conduct of research

II. Responsible Conduct of Research

Responsible conduct of research requires that everyone involved in the research process follows high standards for conducting research. Such standards cover a wide variety of subjects – from proper collection and management of data to the dissemination of research results.

The six standards for responsible conduct of research in the Code of Conduct are recommendations, i.e. they are not *per se* legally binding regulations.

The standards embrace all fields of research. Accordingly, some of the recommendations may not be equally relevant for all fields of research. Neither do they represent an exhaustive list of how to carry out research in every detail. Thus, the standards are meant to be further developed by institutions in accordance with specific practices predominant within the individual field of research.

The standards are based on already commonly agreed practices. They are intended to help researchers and institutions to promote integrity in their research. Widespread adoption of the standards will support a common ground for how responsible research is carried out in Denmark.

The Danish Code of Conduct for Research Integrity addresses six basic standards for conducting research:

1. Research planning and conduct
2. Data management
3. Publication and communication
4. Authorship
5. Collaborative research
6. Conflicts of interest

It is recommended that further specification, policies and procedures are developed at the institutional level. It is specifically recommended that institutions take responsibility for continually informing their research staff about policies and procedures that are in place at the institution.

Researchers and institutions should also be aware of co-existing and legally binding regulations that have an impact on research, e.g. regulation on processing of personal data, intellectual property rights, ethics reviews, etc.

1. Research planning and conduct

Conscientious planning and conduct of research are essential prerequisites for responsible conduct of research, and consequently fundamental to ensuring transparent and credible research. This applies to all fields of research, regardless of the fact that research methods are as varied as the fields of research.

Responsible conduct of research applies throughout the research process, from planning of research to reporting of results.

DEFINITIONS
Research strategies, plans and protocols are types of planning tools for how research could be carried out. The form, content and implementation of these tools are decided by the field of research in question and thus may vary across different disciplines.

1.1. Responsibilities

i. The design, collection of data, and conduct of the intended research should be planned in a manner consistent with practices within the field of research in question. This could entail application of a research planning tool, e.g. a research strategy, plan, protocol or other tools.

ii. Research should be documented in a manner consistent with practices in the field of research in question, e.g. by keeping records, logbooks, journals or similar practices – if possible with dates and entries by the person(s) responsible for the conduct of the research. To the extent possible, the documentation should allow the research to be examined and – when relevant – reproduced.

1.2. Division of responsibilities

i. **Researchers** are responsible for planning and conducting their research.

ii. Throughout the research, **researchers** should conduct assessments to determine if there are particular issues requiring permits, approvals, etc., e.g. approval from an ethics committee or an institutional review board.

iii. **Researchers** should not enter into agreements (e.g. with funders or others) that limit their access to their own data and their ability to analyse and publish these data independently, unless such access limitations can be justified by the specific circumstances.

iv. **Institutions** should maintain relevant policies for the proper management of research planning and conduct and for the procedures regarding necessary approvals and permits.

2. Data management

Responsible conduct of research includes proper management of primary materials and data. The key purpose of data management is to guarantee credible and transparent research.

DEFINITIONS
Primary material is any material (e.g. biological material, notes, interviews, texts and literature, digital raw data, recordings, etc.) that forms the basis of the research.

Data are detailed records of the primary materials that comprise the basis for the analysis that generates the results.

2.1. Responsibilities

i. Primary materials and data should be retained, stored and managed in a clear and accurate form that allows the result to be assessed, the procedures to be retraced and – when relevant and applicable – the research to be reproduced. The extent to which primary materials and data are retained and the recommended retaining period should always be determined by the current practices applicable to the specific field of research. However, data should in general be kept for a period of at least five years from the date of publication.

ii. The data records should enable identification of persons having conducted the research and persons or institutions with responsibility for the primary materials, data, and research results. The data records should contain a precise and traceable reference to the source. Any changes to the primary materials or data stored should be clearly accounted for in a way that allows clear identification of the changes made.

2.2. Division of responsibilities

i. **Researchers** are responsible for storing their primary materials and data.

ii. **Researchers** are – unless otherwise regulated – responsible for deciding the extent to and duration for which primary material is to be retained. When deciding this, **researchers** should consider the value of the primary materials for assessing the results of the research and the physical and technical possibility of storage at the institution.

iii. **Institutions** should maintain a policy on the retention of primary materials and data that includes information on:

   a. Storage of primary materials and data
   b. Secure and safe disposal of primary materials and data after the retention period
   c. Responsibility for and access to primary materials and data
   d. Data retention, accessibility and ownership when researchers leave the institution

iv. **Institutions** are responsible for providing secure data storage facilities that are consistent with confidentiality requirements and applicable regulations and guidelines, e.g. on the processing of personal data.

v. **Institutions** should allow access to the stored primary materials and data, except when this is in conflict with contractual legal obligations or current regulations on for example ethical, confidentiality or privacy matters or intellectual property rights.

3. Publication and communication

Publication and communication are essential for enabling the research community to scrutinize and discuss research results. Thus, researchers have a right and an obligation to publish and communicate their results to the research community, to professional practitioners, and to society at large.

Research can be communicated through various channels ranging from strictly professional contexts aimed at peers to more popular research communication aimed at a broader audience. Although form, expression and level of detail may differ according to channels employed and audiences addressed, the standards for responsible conduct of research should always be respected when communicating research.

DEFINITIONS
Publication is the process of reporting research and research results to the research community through articles, reports, etc. in periodicals, journals or other academic media.

Communication is the broad concept of conveying information to society at large in any form of media.

3.1. Responsibilities

i. Research results should be published in an honest, transparent, and accurate manner.

ii. Publishing the same results in more than one publication should only occur under particular, clearly explained and fully disclosed circumstances.

iii. Recycling or re-use of primary materials, data, interpretations or results should be clearly disclosed.

iv. If access to and analysis of all data are subject to limitations, this should be declared in a clear manner to the readers of the publication. Detailed information about any role of the study sponsor concerning research design, collection, analysis and interpretation of data, and publication decisions should be provided in the manuscript.

v. When using one's own work and the work of other researchers in a publication, appropriate and accurate references to such work should be provided.

vi. The right of researchers to unrestricted publication of their research should be respected.

3.2. Division of responsibilities

i. **Researchers** are responsible for publishing and communicating their research.

ii. **Researchers** are responsible for ensuring adequate reference to the work of others.

iii. **Researchers** are responsible for ensuring that omission of research results is justified and documented and that data used in the publication are reliable.

iv. **Researchers acting as peer reviewers and editors** should carry out their review and editorial obligations in an honest and unbiased manner.

v. **Institutions** should promote and maintain an environment that supports honesty, transparency, and accuracy when disseminating research findings, e.g. through policies and training relating to publication and communication.

vi. **Institutions** should ensure that sponsors and other funders of research fully respect the duty of researchers to publish research and research results honestly, transparently, and accurately.

4.Authorship

Authorship has important academic, social, and financial implications as it plays an important part in the recognition and status of research and researchers.

Fair attribution of authorship – and appropriate acknowledgement of contributions that do not meet the criteria for authorship – contributes to the transparency and credibility of research, and is thus a key requirement in upholding responsible conduct of research.

DEFINITIONS
An *author* is anyone listed as an originator of a research publication.

4.1. Responsibilities

i. Attribution of authorship should in general be based on criteria a-d adopted from the Vancouver guidelines[1], and all individuals who meet these criteria should be recognised as authors:

   a. Substantial contributions to the conception or design of the work, or the acquisition, analysis, or interpretation of data for the work, *and*
   b. drafting the work or revising it critically for important intellectual content, *and*
   c. final approval of the version to be published, *and*
   d. agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

ii. In addition to being accountable for the parts of the work he or she has done, an author should be able to identify which co-authors are responsible for other specific parts of the work.

iii. The criteria for authorship should not be used to exclude persons who otherwise meet authorship criteria, and therefore persons who meet criterion 'a' should be given the opportunity to meet criteria b-d.

iv. Authors have a right to decline authorship, e.g. if they disagree with (part of) the methodology or conclusions in the publication. However, substantial contributions to the work should always be disclosed, e.g. as acknowledgements.

[1] International Committee of Medical Journal Editors – Recommendations for the Conduct, Reporting, Editing, and Publication of Scholarly Work in Medical Journals, Updated December 2013.

v. Important work and intellectual contributions of others that have influenced the reported research but do not meet the criteria for authorship should be appropriately acknowledged.

vi. Participation solely in the acquisition of funding, in the collection of data, or in general supervision of the research group does not justify authorship.

vii. If authorship is by a group name, all members of the group should fully meet the criteria for claiming authorship.

viii. Guest authorship (i.e. listing authors who do not qualify as such) or ghost authorship (i.e. omitting individuals who should have been listed as authors) should not take place.

ix. Decisions concerning publication and authorship should be agreed on jointly and should be communicated to all members of the research team. Any alterations to manuscripts after submission should be approved by all authors.

x. All authors are responsible for the content of the publication. However, the responsibility of each author should be assessed subject to their individual role in the research by considering their area of expertise, their experience and seniority, a possible supervisory role, and other relevant factors. Thus, in some cases an author may have a wider responsibility than others for ensuring the integrity of the publication or specific parts of the publication.

4.2. Division of responsibilities

i. **Researchers with author roles** are jointly responsible for ensuring that all persons named as authors qualify as such and for ensuring appropriate acknowledgement of contributions that do not meet the criteria for authorship, cf. the requirements for authorship as set out above.

ii. **Researchers** should address issues relating to authorship – especially the roles of all collaborators and contributors – at an early stage while recognising that roles and contributions may change during the time span of the research.

iii. **Institutions** should maintain a policy on the attribution of authorship and on how to handle authorship disputes.

5.Collaborative research

Research is increasingly a collaborative undertaking involving researchers from different disciplines, institutions, and countries. Such collaboration can present challenges, as research cultures and perceptions of research integrity may differ across disciplines, institutions and countries.

The key purpose of guidelines for collaborative research is to support a common understanding of and framework for the application of responsible conduct of research.

DEFINITIONS
Collaborative research is research based on cross disciplinary, cross institutional, cross sectorial and/or cross border collaboration.

Collaborating partners are all parties involved with the collaborative research, including researchers, students, technical personnel, administrative personnel and institutions.

5.1. Responsibilities

i. All collaborating partners should – to the extent possible – take responsibility for the integrity of the collaborative research.

ii. Collaborating partners should – if feasible and preferably as early as possible in the research process – establish agreements on all relevant areas, and specify how responsible conduct of research will be applied throughout the collaborative research.[2]

iii. Where appropriate, common agreements should – in addition to standard agreements on the practical implementation of the research – be established on the following:

a. Intellectual property rights
b. Procedures for addressing conflicting laws, regulations, practices, etc.
c. Procedures for resolution of conflicts between collaborating partners
d. Publication issues
e. Use, sharing, ownership and management of data
f. Confidentiality
g. Conflicts of interest
h. Procedures for reporting and handling breaches of responsible conduct of research, including research misconduct

5.2. Division of responsibilities

i. **Researchers** should identify areas in the collaborative research where common agreements may be necessary.

[2] When entering into international collaborative research, the boilerplate text from the OECD Global Science Forum 'Investigating Research Misconduct Allegations in International Collaborative Research Projects – A Practical Guide' (2009) may serve as inspiration for the collaborating partners.

ii. **Institutions** are responsible for providing the tools and support necessary for establishing agreements as specified above.

6.Conflicts of interest

Responsible conduct of research includes disclosure of all potential conflicts of interest. This allows financial or other interests to be assessed on an informed basis in order to evaluate possible bias of professional judgement.

DEFINITIONS
A *conflict of interest* is a situation in which financial or other interests have the potential to compromise or bias professional judgement.

6.1. Responsibilities

i. All parties involved with the research in question should disclose any conflicts of interest.

ii. Assessors of research and research proposals (e.g. editors, reviewers, research councils, etc.) who have a conflict of interest should withdraw from any involvement in the process.

iii. All parties involved with the research in question have a joint responsibility for handling issues relating to conflicts of interest.

6.2. Division of responsibilities

i. **Researchers** are responsible for disclosing all conflicts of interest related to the research they are involved with.

ii. **Institutions** are responsible for addressing conflicts of interest, and for ensuring that all conflicts of interest are handled adequately. In this context **institutions** should have a policy for handling conflicts of interest, which includes information on:

   a. Situations that constitute a conflict of interest
   b. Disclosure of conflicts of interest, including how to handle confidentiality issues

III. Research integrity teaching, training, and supervision

The Danish Code of Conduct on Research Integrity outlines a basic platform for research integrity teaching, training and supervision at the institutional level.

Fostering a culture of research integrity is a key element for ensuring high quality and integrity in research. In this context, teaching, training, and supervision are essential for developing and sustaining a culture of research integrity and for establishing and sustaining basic knowledge on research integrity among those involved in research.

It is important that institutions take responsibility for ensuring that researchers under their auspices receive relevant teaching, training, and supervision in the principles of research integrity and responsible conduct of research. The main purpose is to incorporate the elements of research integrity into the day-to-day work of researchers, and to promote a mind-set that supports research integrity.

A fundamental part of sustaining and developing a culture of research integrity is the role of supervisors and senior researchers acting as mentors and role models. Thus, it is important that supervisors and senior researchers engage in research integrity teaching, training, and supervision.

1. Teaching, training, and supervision in the principles of research integrity and responsible conduct of research

The purpose of research integrity teaching, training, and supervision is to promote a research culture in Denmark that is governed by the principles of research integrity and responsible conduct of research.

Teaching, training, and supervision are of pivotal importance in raising awareness of research integrity because it provides a proactive and positive approach to promoting research integrity as central to the research mission.

Research leaders and supervisors have particularly important roles in research integrity teaching, training, and supervision.

DEFINITIONS
Research leaders are individuals with the overall professional academic responsibility for the research carried out.

Supervisors are experienced researchers providing guidance for Master's students, PhD students, and less experienced colleagues.

1.1. Responsibilities

i. The principles of research integrity and responsible conduct of research should be an element of all research undertakings and educational curricula, and should pervade the research process.

ii. All involved in the research process should promote and maintain an environment that fosters research integrity where the fundamental values of research integrity are emphasized and practised as a matter of routine.

iii. Research integrity teaching, training, and supervision should include:

   a. Principles of research integrity
   b. Responsible conduct of research
   c. Research misconduct and breaches of responsible conduct of research, including the procedures for handling suspicions
   d. Relevant regulations

iv. Undergraduate (bachelor) and graduate (master's) programmes should include an introduction to the principles of research integrity and responsible conduct of research.

v. Technical personnel should receive specific research integrity teaching and training.

vi. PhD and postdoctoral programmes should include specific research integrity teaching and training. In this context, supervision of PhD students and postdocs should include guidance on research integrity.

vii. Research leaders and supervisors should receive specific research integrity teaching and training to support their mentoring roles in fostering a culture of research integrity.

1.2. Division of responsibilities

i. **Research leaders** and **supervisors** should act as role models, and manage research under their auspices in accordance with the principles of research integrity and responsible conduct of research.

ii. **Research leaders** and **supervisors** should nurture a culture of research integrity and mutual respect in accordance with the principles of research integrity and responsible conduct of research.

iii. **Supervisors** should take measures to ensure that the research carried out by researchers, research trainees, and students under their supervision is conducted in observance of the principles of research integrity and responsible conduct of research.

iv. **Institutions** are responsible for ensuring that all staff (including guest researchers) and students involved in research have sufficient knowledge of and receive training in the principles of research integrity and responsible conduct of research.

IV. Research misconduct and breaches of responsible conduct of research

The Danish Code of Conduct on Research Integrity outlines the responsibility for addressing research misconduct and breaches of responsible conduct of research and presents recommendations for a basic institutional platform.

The standards for responsible conduct of research in this document are not legally binding regulations. As a consequence, breaches of those standards will not *per se* result in legal sanctions.

Nevertheless, in order to maintain confidence in research, including the scientific community's own confidence in research and the public's perception of the trustworthiness of research, it is important that suspicions of breaches of responsible conduct of research are brought forward and dealt with adequately. This includes situations of research misconduct (see the current definition used by the Danish Committee on Scientific Dishonesty in the textbox) as well as situations that do not reach the threshold of research misconduct.

Institutions and researchers share a responsibility for addressing and taking appropriate measures when encountering breaches of responsible conduct of research.

In Appendix 1, recommendations for establishing a basic platform for institutions to deal with suspicions of breaches of responsible conduct of research are outlined. The institutional systems are intended to co-exist with the central national body, the Danish Committees on Scientific Dishonesty. Thus, the recommendations in appendix 1 lay out basic guidelines for institutional systems for dealing with such suspicions, whereas the implementation of specific processes should rest with the individual institution.

1. Breaches of responsible conduct of research

To ensure high integrity in research, all parties involved should be aware of their responsibility for addressing breaches of responsible conduct of research. Thus, institutions and researchers should support initiatives for handling breaches of the responsible conduct of research.

DEFINITIONS
Breaches of responsible conduct of research are breaches of current standards on responsible conduct of research, including those of the Danish code of conduct, and other applicable institutional, national and international practices and guidelines on research integrity. If serious enough, a breach may also represent research misconduct, cf. the definition used by the Danish Committees on Scientific Dishonesty.

1.1. Responsibilities

i. All parties involved in the research share responsibility for ensuring that well-founded suspicions of breaches of responsible conduct of research put forward in good faith are addressed adequately.

ii. Systems for addressing these matters should be clearly described and easily accessible.

1.2. Division of responsibilities

i. **Researchers** and **institutions** are responsible for creating and maintaining an environment where it is acceptable to bring forward well-founded suspicions of breaches of responsible conduct of research in good faith.

ii. **Researchers** are responsible for supporting the handling of such suspicions.

iii. **Institutions** are responsible for ensuring that a system for addressing well-founded suspicions of breaches of responsible conduct of research is in place at the institutional level.

iv. **Institutions** should have a policy which describes their system for addressing suspicions of breaches of responsible conduct of research, including:

   a. Where and to whom a person can turn to for advice on a well-founded suspicion of a breach of responsible conduct of research
   b. The step-by-step procedure for addressing such suspicions
   c. The possible outcomes of an investigation
   d. The sanctions that may be imposed at the institutional level

e. Dealing with suspicions that involve research or staff from other institutions, including institutions abroad
f. Other relevant information

THE DANISH COMMITTEES ON SCIENTIFIC DISHONESTY

The Danish Committees on Scientific Dishonesty (DCSD) form a central national body tasked with handling allegations on research misconduct based on complaints brought before the committees by individuals or institutions. The DCSD is an independent body established by an Act of Parliament under the Ministry of Higher Education and Science.

The DCSD's mandate is limited to allegations concerning research misconduct (referred to as 'scientific dishonesty' in the Act) as defined in Consolidated Act no. 365 of 10 April 2014 on the research advisory system, etc., section 2 (3):

"The term 'scientific dishonesty is defined as: falsification, fabrication, plagiarism and other serious violations of good scientific practice committed intentionally or due to gross negligence during the planning, implementation or reporting of research results."

Thus, the DCSD cannot deal with cases solely concerning breaches of responsible conduct of research, if such breaches do not represent research misconduct as described above.

More information on the mandate and structure of the DCSD is available at www.ufm.dk/uvvu

Appendix 1– Recommendations for responding to breaches of responsible conduct of research

A prompt and effective response to suspicions of breaches of responsible conduct of research is required in order to maintain general confidence in research, including the scientific community's own confidence in research and the public's perception of the trustworthiness of research.

At the national level, the Danish Committees on Scientific Dishonesty can handle cases concerning research misconduct (for more information on the Danish Committees on Scientific Dishonesty see the textbox below). However, it is important that each research institution has its own system in place for handling breaches of responsible conduct of research, as such breaches may in many cases not constitute research misconduct as defined in the regulations governing the Danish Committees on Scientific Dishonesty.

Institutional systems for addressing suspicions of breaches of responsible conduct of research co-exist with the Danish Committees on Scientific Dishonesty. Thus, institutional systems do not limit researchers or others from putting forward their suspicions of research misconduct directly to the Danish Committees on Scientific Dishonesty.

Institutional systems and procedures should comprise at least the following elements in order to ensure coherent and effective handling of suspicions of breaches of responsible conduct of research at the institutional level.

1. Preliminary advice concerning a suspicion of a potential breach

Anyone with a well-founded suspicion that a breach of responsible conduct of research has occurred should have the opportunity to request personal, impartial and professional advice concerning the suspicion, e.g. through a 'named person' or similar.

In cases of qualified grounds for the suspicion, the case should be submitted for further investigation in accordance with institutional procedures and the parties to the case should be informed immediately.

2. Investigation of a well-founded suspicion

When addressing and investigating suspicions of breaches of responsible conduct of research, the general principles governing public decision making as well as the following principles should be observed:[3]

a) The persons involved in addressing the suspicion and handling the investigation should be impartial.
b) The investigators should possess professional competences within the specific fields of research and thorough knowledge of responsible conduct of research. Preferably, one or more investigators should have prior experience with cases concerning research misconduct and/or breaches of responsible conduct of research.
c) The parties to the case should be highly involved in processing the case by being allowed to comment on the investigational material and by being continually informed of the status of the case.
d) The parties to the case should be protected to the extent possible so that:
    - persons bringing forward suspicions in good faith ('whistle-blowers') are protected from reprisals
    - complaints strictly brought forward in bad faith (as harassment) should in themselves be considered a breach of responsible conduct of research
    - the identities of the parties are kept confidential to the extent possible.
e) Similar cases/situations should be treated similarly.
f) Investigation procedures should be made public.
g) Cases should be concluded efficiently, so that no person is part of an investigation longer than strictly necessary.

The investigation should end with an ascertainment of whether a breach of responsible conduct of research has occurred. If there is a suspicion that the breach qualifies as research misconduct, the institution may choose to refer the case to the Danish Committees on Scientific Dishonesty.

3. Conclusion of the investigation/sanctions

If the institutional investigation concludes that a breach of responsible conduct of research has taken place, it is the responsibility of the institution(s) where the research has been carried out and/or where the researcher is employed to impose relevant sanctions.

[3] The recommendations for institutional systems for responding to breaches of responsible conduct of research should be viewed and interpreted in accordance with Danish legislation such as Danish administrative law, e.g. on status as party to the case, access to information, etc.

Appendix 2 – Members of the working group on the Danish Code of Conduct for Research Integrity

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Appendix 3 – Bibliography

The Danish Code of Conduct for Research Integrity was developed with inspiration from various initiatives from the Danish universities and the sector research institutes of Denmark and from the following list of international initiatives.

The European Code of Conduct for Research Integrity (2011)
European Science Foundation(ESF)/All European Academies (ALLEA)

ERC Scientific Misconduct Strategy (2012)
European Research Council (ERC)

Responsible Conduct in the Global Research Enterprise (2012)
InterAcademy Council/The Global network of Science Academies (IAC/IAP)

Recommendations for the Conduct, Reporting, Editing, and Publication of Scholarly Work in Medical Journals (Vancouver-guidelines) (2013)
International Committee of Medical Journal Editors (ICMJE)

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Singapore Statement on Research Integrity (2010)
World Conferences on Research Integrity 2010

Montreal Statement on Research Integrity in Cross-Boundary Research Collaborations (2013)
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Australian Code for the Responsible Conduct of Research (2007)
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